

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT - REVISION  
NESHAP SOURCE

PERMITTEE

Danville Metal Stamping Company  
Attn: Tom Neal  
17 Oakwood Avenue  
Danville, Illinois 61832

Application No.: 01070021

I.D. No.: 183020AHO

Applicant's Designation:

Date Received: March 21, 2005

Subject: Metal Parts Manufacturing Plant

Date Issued:

Expiration Date: October 12, 2009

Location: 1100 Martin Street, Danville

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of

2 Batch Vapor Degreaser  
2 Wax Melters with Dust Collection

pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., Single Hazardous Air Pollutant to less than 10 tons/year). As a result the source is excluded from the requirement to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permits issued for this location.
2. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish in rule which would require the Permittee to obtain a CAAPP permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA.
3. The batch vapor degreasing solvent cleaning machine is subject to 40 CFR Part 63, Subpart T - National Emission Standards for Halogenated Solvent Cleaning. The Illinois EPA is administering this regulation in Illinois on behalf of the United States EPA under a delegation agreement.

- 4a. Emissions and operation of the solvent usage of the 2 batch vapor degreasers shall not exceed the following limits:

<u>Equipment</u>	<u>Solvent Usage</u>		<u>Pollutant</u>	<u>HAP Emissions (i.e., Perchloroethylene)</u>	
	<u>(Lb/Mo)</u>	<u>(Lb/Yr)</u>		<u>(Lb/Mo*)</u>	<u>(Tons/Yr)</u>
2 Batch Vapor Degreaser (Each)	385	4,620	HAP	384.25	2.31

\* Average monthly emission limit based on a rolling 3 months of emissions.

These limits are based on NESHAP allowable emissions standards for batch Vapor degreasers with a solvent/air interface of 12.5 ft<sup>2</sup> using the alternative emissions standards of 40 CFR 63.464 (30.74 lb/ft<sup>2</sup>-mo), and information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

- b.
  - i. This permit is issued based on negligible emissions of particulate matter (PM) from the 2 wax melters with dust collection. For this purpose emissions from each emission source, shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 tons/year.
  - ii. This permit is issued based on the wax material does not contain any volatile organic materials (VOM) or hazardous air pollutants (HAPs).
5. The Permittee shall use only perchloroethylene or any other solvent which does not contain any volatile organic materials (VOM) as solvent. The use of any other solvent will require necessary additional permitting.
6. Pursuant to 40 CFR 63.465 (b), the Permittee shall, on the first operating day of every month ensure that the batch vapor degreaser system contain only clean liquid solvent. This includes, but is not limited to, fresh unused solvent, recycled solvent, and used solvent that has been cleaned of soils. A fill line must be indicated during the first month the measurements are made. The solvent level within the machine must be returned to the same fill-line each month, immediately prior to calculating monthly emissions as determined in Condition 7 (b) of this permit. The solvent cleaning machine does not have to be emptied and filled with fresh unused solvent prior to the calculations.
- 7a. Determination of compliance with the limits of this permit, solvent usage shall be determined by the following equation:

$$U = [V - (W \times P)] \times D$$

Where:

U = Solvent usage for compliance determinations (lbs).

V = Virgin solvent<sup>A</sup> added to the solvent cleaning machines (gallons), as determined by daily addition log sheets.

W = Waste solvent<sup>B</sup> removed from the solvent cleaning machines and sent off-site for reclamation or disposal (gallons), as determined by monthly manifests.

P = Percent concentration of solvent in waste, as determined by analysis/testing<sup>C</sup>.

D = Density of Solvent (lb/gal)

<sup>A</sup> For purposes of this permit, virgin solvent is defined as unused solvent.

<sup>B</sup> For purposes of this permit, waste solvent is defined as used solvent.

<sup>C</sup> The percent concentration of solvent in waste (P) shall be determined in accordance with USEPA Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW-846), Test Method 8260.

- b. Pursuant to 40 CFR 63.465 (c) (1), the determination of compliance with the emission limits of 40 CFR 63.464 of 30.74 lb/ft<sup>2</sup>-mo, emissions shall be determined by the following equations:

$$E = \frac{(V - LW - SW)}{A}$$

$$EA = \frac{E_1 + E_2 + E_3}{3}$$

Where:

E = Solvent Emissions for compliance determinations (lbs/ft<sup>2</sup>-mo).

V = Virgin solvent<sup>A</sup> added to the solvent cleaning machines (lbs/mo), as determined by daily addition log sheets.

LW = Liquid Waste solvent<sup>B</sup> removed from the solvent cleaning machines and sent off-site for reclamation or disposal (lbs/mo), as determined by monthly manifests.

SW = Total amount of halogenated HAP solvent removed from the solvent cleaning machine in solid waste, as determined by tests conducted using EPA reference method 25d.

A = Solvent/air interface Area (ft<sup>2</sup>)

EA = Average halogenated HAP solvent emissions over the preceding 3 monthly reporting periods, (kilograms of solvent per square meter of solvent/air interface area per month)

E<sub>1</sub> = Halogenated HAP solvent emissions for the most recent monthly reporting period

E<sub>2</sub> = Halogenated HAP solvent emissions for the monthly reporting period immediately prior to E<sub>1</sub>

E<sub>3</sub> = Halogenated HAP solvent emissions for the monthly reporting period immediately prior to E<sub>2</sub>

<sup>A</sup> For purposes of this permit, virgin solvent is defined as unused solvent.

<sup>B</sup> For purposes of this permit, waste solvent is defined as used liquid solvent.

8. Pursuant to 35 Ill. Adm. Code 215.183, no person shall operate an open top vapor degreaser unless:
- a. The cover of the degreaser is closed when workloads are not being processed through the degreaser;
  - b. Solvent carryout emissions are minimized by:
    - i. Racking parts to allow complete drainage;
    - ii. Moving parts in and out of the degreaser at less than 3.3 m/min (11 ft/min);
    - iii. Holding parts in the vapor zone until condensation ceases;
    - iv. Tipping out any pools of solvent on the cleaned parts before the removal from the vapor zone; and
    - v. Allowing parts to dry within the degreaser until visually dry.
  - c. Porous or Absorbent materials, such as cloth, leather, wood or rope, are not degreased;
  - d. Less than half of the degreaser's open top area is occupied with a workload;
  - e. The degreaser is not loaded to the point where the vapor level would drop more than 10 cm (4 in) when the workload is removed from the vapor zone;
  - f. Spraying is done below the vapor level only;

- g. Solvent leaks are repaired immediately;
  - h. Waste Solvent is stored in covered containers only and are not disposed of in a manner that more than 20% of the solvent (by weight) is allowed to evaporate into the atmosphere;
  - i. Water is not visually detectable in solvent exiting from the water separator;
  - j. Exhaust ventilation exceeding 20 cubic meters per minute per square meter (65 cubic feet per minute per square foot) of degreaser open area is not used; unless necessary to meet the requirements of the Occupational Safety and Health Act (29 U.S.C. Section 651 et seq.);
  - k. The degreaser is equipped with a cover designed to open and close easily without disturbing the vapor zone;
  - l. The degreaser is equipped with the following switches:
    - i. Which shuts off the sump heat if the amount of condenser coolant is not sufficient to maintain the designed vapor level; and
    - ii. Which shuts off the spray pump if the vapor level drops more than 10 cm (4 in) below the bottom condenser coil; and
    - iii. Which shuts off the sump heat source when the vapor level exceed the design level.
  - m. A permanent conspicuous label summarizing the operating procedure is affixed to the degreaser;
  - n. The degreaser is equipped with one of the following devices:
    - i. A freeboard height of 3/4 of the inside width of the degreaser tank or 91 cm (36 in), which ever is less; and if the degreaser opening is greater than 1 square meter, a powered or mechanically assisted cover; or
    - ii. Any other equipment or system of equivalent emission control as approved by the Illinois EPA and further processed consistent with 35 Ill. Adm. Code 218.108. Such equipment or system may include a refrigerated chiller, an enclosed design or a carbon absorption system.
9. In the event that the operation of this emission unit results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the odor nuisance.

10. The Permittee shall maintain the following records:
  - a. Solvent usage (lb/month and lb/year);
  - b. HAP emissions (lb/month and tons/year); and
  - c. Pursuant to 40 CFR 63.465 (c), the Permittee shall maintain the following records either in electronic format or written records for a period of 5 years:
    - i. The dates and amounts of solvent that are added to the solvent cleaning machine.
    - ii. The solvent composition of wastes removed from cleaning machines as determined using the procedure described in §63.465(c) (2).
    - iii. Calculation sheets showing how monthly emissions and the rolling 3-month average emissions from the solvent cleaning machine were determined, and the results of all calculations.
11. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry, unless otherwise specified, and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.
12. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.
13. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Compliance Section (#40)  
P.O. Box 19276  
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
2009 Mall Street  
Collinsville, Illinois 62234

It should be noted that the welding, metal grinder with dust collection are exempt from state permitting pursuant to 35 Ill. Adm. Code 201.146 (y), (aa), and (jj), receptively.

Please note that this permit is revised to add one batch vapor degreaser.

If you have any questions on this, please call George Kennedy at 217/782-2113.

Donald E. Sutton, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

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cc: Region 3

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from Danville Metal Stamping Company operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario, which results in maximum emissions from such a plant. Maximum degreaser Solvent Usage of 4,620 lbs/year. The resulting maximum emissions are below the levels, e.g., 10 tons per year of an individual HAP and 25 tons per year of total combined HAPs at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled and control measures are more effective than required in this permit.

<u>Equipment/Process</u>	E M I S S I O N S (Tons/Year)					
	<u>PM</u>	<u>NO<sub>x</sub></u>	<u>CO</u>	<u>SO<sub>2</sub></u>	<u>VOM</u>	<u>HAP</u>
2 Batch Vapor Degreaser (Total)	--	--	--	--	0	4.62 <sup>A</sup>
2 Wax Melters (Total)	<u>0.88</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>----</u>
Total:	0.88	--	--	--	--	4.62

<sup>A</sup> Perchloroethylene

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## Project Summary

### Introduction:

Danville Metal Stamping Company has submitted an Application for a revision to their Federally Enforceable State Operating Permit (FESOP) for Metal Parts Manufacturing Plant. This Application has been submitted in order to incorporate federally enforceable limits. These limits would prevent the facility from being a major source of Hazardous Air Pollutants (HAPs), and thereby relieving them of having to obtain a Clean Air Act Permit Program (CAAPP). Included with these federally enforceable limits would be specific recordkeeping and reporting requirements to assure that the facility is operated as a non-major source. Both the USEPA and Illinois EPA would enforce these conditions.

### Source Description:

Danville Metal Stamping Company is located in Danville, Illinois. This facility produces Engine Parts.

### Emissions:

Emissions of HAPs will occur from the 2 batch vapor degreasers located at the facility. The degreasers use Perchloroethylene as the solvent. The units are subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements for equipment standards and limits.

### Applicable Emission Standards:

All emission sources in Illinois must comply with the emission standards set by the Illinois Pollution Control Board. The Pollution Control Board's emission standards represent the basic requirements for sources in Illinois. The Pollution Control Board has emission standards for Hazardous air pollutants. Danville Metal Stamping Company readily complies with all emission standards set forth by the Pollution Control Board.

### Proposed Permit:

The conditions in this FESOP are designed to ensure that this facility is continually operated as a non-major source. This permit has conditions that limit the production of concrete and the amount of aggregate processed. This permit also contains conditions of specific recordkeeping and reporting requirements. Danville Metal Stamping Company must carry out these procedures on an ongoing basis to demonstrate compliance with the limits set forth in this FESOP.

### Request for Comments:

It is the Illinois EPA preliminary determination that the facility meets all applicable state and federal air pollution control regulations. The Illinois EPA is therefore proposing the issuance of this FESOP with all of the specific requirements contained in the permit. Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on this draft FESOP. If substantial interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 Ill. Ad. Code Part 166.

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